CLAIMS

1. Oligonucleotide with between 7 and 25 nucleotides, preferably 20, capable of specifically hybridising with genes or products of genes coding for protein kinase C beta-1 (PKC beta-1).

2. Oligonucleotide according to claim 1, capable of specifically hybridising with any one of regions 5' to 3' that is or is not coding for the genes coding for PKC beta-1

3. Oligonucleotide according to either claim 1 or 2, for which the oligonucleotide sequence is one of the sequences SEQ ID No. 1 to SEQ ID No. 5 with the following meaning:

- SEQ ID No. 1: ACACCCCAGGCTCAACGATG
- SED ID No. 2: TGG AGT TTG CAT TCA CCT AC
- SEQ ID No. 3: AAA GGC CTC TAA GAC AAG CT
- SED ID No. 4: GCC AGC ATC TGC ACC GTG AA
- SED ID No. 5: CCG AAG CTT ACT CAC AAT TT

4. Oligonucleotide according to claim 3 for which the sequence is one of the sequences SEQ ID No. 1 and SEQ ID No. 4.

5. Oligonucleotide according to claim 3 for which the sequence is SEQ ID No. 1.

6. Oligonucleotide according to one of the above claims, comprising one or several chemical modifications in its sugar parts, its nucleobase parts or its internucleotide skeleton that confer improved physicochemical characteristics on the said oligonucleotide.

7. Oligonucleotide according to claim 6, characterised in that its sugar part comprises a 2'-O-fluoro or 2'-O-alkyl substitute, preferably a 2'-O-ethyloxymethyl or 2'-O-methyl substitute.

8. Oligonucleotide according to claim 6 or 7, characterised in that a part of the phosphodiester groups in its internucleotide skeleton is replaced by phosphorothioate groups.

9. Oligonucleotide according to claim 6 or 7, characterised in that a part of the phosphodiester groups of its internucleotide skeleton is replaced by methylphosphonate groups.

10. Oligonucleotide according to claim 6 or 7, characterised in that all phosphodiester groups are replaced by phosphorothioate groups.

11. Oligonucleotide according to claim 6 or 7, characterised in that all phosphodiester groups are replaced by methylphosphonate groups.

12. Oligonucleotide according to claim 6 or 7, characterised in that phosphodiester groups are wholly or partly replaced by phosphorothioate groups and/or by methylphosphonate groups.

13. Oligonucleotide according to one of claims 1 to 12 to which a linear nucleic acid or peptidic acid type administration vector, or a circular plasmidic type administration vector, has been grafted.

14. Cosmetic composition containing at least one oligonucleotide according to one of claims 1 to 13 and a cosmetically acceptable medium.

15. Cosmetic composition according to claim 14 containing one or several active agents chosen from

among an antisense oligonucleotide directed against tyrosinase gene expression products, an antisense oligonucleotide directed against tyrosinase-related-protein 1 (TRP-1) gene expression products; ellagic acid and its derivatives resorcinol and its derivatives; vitamin C and its derivatives; pantothenate sulfonate and its derivatives; molecules interfering directly or indirectly with the alpha-melanocyte stimulating hormone (α-MSH) or its receptor or the adrenocorticotropic hormone (ACTH); polyols such as glycerine, glycol or propylene glycol; vitamins; keratolytic and/or desquamating agents such as salicylic acid and its derivatives; alpha-hydroxyacids such as lactic acid or malic acid, alone or grafted; ascorbic acid and its derivatives; retinoids and carotenoids in liposomic preparation or not, such as retinaldehyde; retinol and its derivatives such as palmitate, propionate or acetate, beta-carotene, antiglycation agents and/or antioxidants ou antioxidizing agents taken alone or in association such as tocopherol and its derivatives, ergothioneine, thiotaurine, hypotaurine, aminoguanidine, thiamine pyrophosphate, pyridoxamine, lysine, histidine, arginine, phenylalanine, pyridoxine, adenosine triphosphate; anti-inflammatory agents such as stearyl glycyrrhetinate; tranquillising agents and mixes of them, chemical or physical solar filters such as octyl methoxycinnamate, butyl-methoxydibenzoyl-methane, titanium oxide and zinc oxide; and deoxyribonucleic and/or nucleic acids.

16. Cosmetic composition according to claim 14 or 15, characterised in that the oligonucleotide(s) according to the invention are in quantities varying from 0.00001% to 10%, and preferably from 0.0003% to 3% of the total weight of the cosmetic composition.

17. Cosmetic composition according to any one of claims 14 to 16 in the form of an emulsion containing an oil, an emulsifying agent chosen from among fatty acid and polyethylene glycol esters such as PEG-20 stearate, and fatty acid and glycerine esters such as glycerine stearate, and a co-emulsifying agent.

18. Use of a composition according to claims 14 to 17 to depigment or bleach the skin and/or human hair.

19. Use of an oligonucleotide according to claims 1 to 13 as an active constituent inhibiting synthesis of melanin for fabrication of a cosmetic composition according to claims 14 to 17.

20. Use of at least one oligonucleotide according to claims 1 to 13 as an active constituent inhibiting synthesis of melanin for fabrication of a topical pharmaceutical composition designed for the treatment or prevention of regional hyper pigmentation by melanocyte hyper-activity such as idiopathic melasma, local hyper pigmentation due to hyper-activity and benign melanocyte proliferation such as pigmentary age spots (actinic lentigos), accidental hyper pigmentation such as photosensitization or post-lesion healing, and for the treatment of some leucodermias such as vitiligo.

21. Use according to claim 20, characterised in that the oligonucleotide(s) according to the invention represent(s) 0.00001% to 10%, preferably 0.0003% to 3% of the total weight of the said topical pharmaceutical composition.